

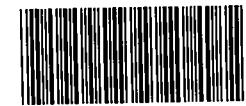


COMPUCHEM

a division of Liberty Analytical Corp.

ORIGINAL

February 24, 2000



SDMS DocID

2241136

(b) (4)

WESTON
5 Underwood Court
Delran, NJ 08075-1229

Subject: Report of Data – Project: 0002-L02 Quote #: Q1141 SDG #: R1141

Attn.: (b) (4)

Enclosed are the results of analytical work performed in accordance with the referenced account number.

This report covers sample(s) appearing on the attached listing.

Thank you for selecting CompuChem Environmental for your sample analysis. If you should have questions or require additional analytical services, please contact your representative at 1-800-833-5097.

Sincerely,

(b) (4)

A Division of Liberty Analytical

Attachment

ORIGINAL

SAMPLENUM CLIENTID CASE SDG MATRIX ACCTNUM PROJECTNUM RECEIVEDATE

R1141-4	BG-04	Q1141 R1141 SO	WESTON	0002-L02	02/15/00
R1141-1	SS-34	Q1141 R1141 SO	WESTON	0002-L02	02/15/00
R1141-2	SS-35	Q1141 R1141 SO	WESTON	0002-L02	02/15/00
R1141-3	SS-36	Q1141 R1141 SO	WESTON	0002-L02	02/15/00
R1141-5	SS-37	Q1141 R1141 SO	WESTON	0002-L02	02/15/00

ORIGINAL

U.S. SAMPLE DATA SUMMARY PACKAGE

The sample data summary package shall contain data for all samples in one Sample Delivery Group (SDG) of the Case, as follows:

A. SDG Narrative

B. Tabulated target compound results (Form I)

Tentatively identified compounds (Form I, TIC) (VOA & SV only)
In order by fraction (VOA, SV, PEST) and by sample
within each fraction.

C. System monitoring compound results (Form II - VOA only)

Surrogate spike analysis results (Form II - SV & PEST only)
By fraction (VOA, SV, PEST), matrix (Water or Soil),
and by concentration (Low or Medium)

D. Matrix Spike / Matrix Spike Duplicate results (Form III)

By fraction (VOA, SV, PEST)

E. Blank data (Form IV)

Tabulated blank results (Form I)
Tentatively identified compounds (Form I, TIC)
By fraction (VOA, SV, PEST)

F. Internal standard area response and retention time data (Form VIII)

By fraction (VOA & SV only)

LAB CODE : LIBRTY

CONTRACT # : 68-S5-3002

CASE # : _____

SDG # : R1141

ORIGINAL

A. SDG Narrative

ORIGINAL

COMPUCHEM

A division of Liberty Analytical Corporation
501 Madison Ave.
Cary, NC 27513

SDG NARRATIVE

CASE #Q1141
SDG #R1141
CONTRACT #68-S5-3002

SAMPLE IDENTIFICATIONS:

SS-34 SS-35 SS-36 BG-04 SS-37

This portion of the SDG narrative deals with the semivolatile fractions for the five samples above only. For the receiving information associated with these samples, please refer to the volatile SDG narrative.

All pertinent Quality Assurance notices are included in the narrative section and all pertinent Laboratory notices for Case #Q1141, SDG #R1141 are included in the sample data sections.

SEMIVOLATILE

The semivolatile fractions were extracted and analyzed within the required holding time. The percent moisture values for the samples ranged from 18% to 30% and the pH values ranged from 3.7 to 8.0.

One to nine Target Compound List (TCL) analytes were detected with concentrations above the Contract Required Quantitation Limit (CRQL) in two of the samples. These analytes were phenanthrene, fluoranthene, pyrene, benzo(a)anthracene, chrysene, bis(2-ethylhexyl)phthalate, benzo(b)fluoranthene, benzo(k)fluoranthene and benzo(a)pyrene.

In the continuing calibration standards associated with these samples, benzo(b)fluoranthene and benzo(k)fluoranthene were chromatographically resolved and were identified as separate peaks with different retention times. However, in sample SS-37 and the duplicate matrix spikes, the isomers could not be chromatographically resolved. This is indicated with "X" flags on the Form Is.

Six to nineteen Tentatively Identified Compounds (TIC) were detected in the samples. Many of these TICs were assessed as unknowns and PAHs. Other TICs were detected and assessed as unknown alkanes in some of the samples. The TICs that were characterized as alkanes have been summarized on the Alkane Narrative Report that are located in the narrative section of the data package. The TIC spectra for the alkanes are located in the data section for the individual samples.

ORIGINAL

QC SUMMARY

All decafluorotriphenylphosphine (DFTPP) abundance criteria were met for tunes associated to this SDG. Overall QC criteria were met for all initial and continuing calibration standards associated to this SDG.

The surrogates met recovery criteria for the semivolatile fractions. The internal standards met area response and retention time criteria. The duplicate matrix spikes met accuracy and precision criteria. The associated blanks, Initial Calibrations and Continuing Calibrations met Quality Control criteria.

In the analyses of the Initial and Continuing Calibration standards and all of the samples, manual quantitations were performed. The reasons have been coded with explanations provided in the notice included in the narrative section of the SDG.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the laboratory manager or his designee, as verified by the following signature:

(b) (4)

(b) (4)

Final Technical Review

21 February 2000

Note: This report is paginated for reference and accountability in numerical sequence.

ALKANE NARRATIVE REPORT
Report date : 02/21/2000
SDG: R1141

ORIGINAL

Client Sample ID: SS-37 Lab Sample ID: R1141-5 File ID: GR1141-5B70
Compound RT Est. Conc. Q

Straight-Chain Alkane 17.40 88.45 J
Straight-Chain Alkane 18.30 310.7 J
Straight-Chain Alkane 19.28 300.7 J

Client Sample ID: SS-34 Lab Sample ID: R1141-1 File ID: GR1141-1B70
Compound RT Est. Conc. Q

Straight-Chain Alkane 18.29 375.7 J
Straight-Chain Alkane 19.27 322.4 J

Client Sample ID: SS-36 Lab Sample ID: R1141-3 File ID: GR1141-3A70
Compound RT Est. Conc. Q

Unknown Alkane 18.29 191.8 J
Straight-Chain Alkane 19.27 140.6 J

Client Sample ID: BG-04 Lab Sample ID: R1141-4 File ID: GR1141-4A70
Compound RT Est. Conc. Q

Unknown Alkane 15.40 83.65 J
Straight-Chain Alkane 17.39 183.3 J
Straight-Chain Alkane 18.29 398.8 J
Straight-Chain Alkane 19.27 320.6 J

Client Sample ID: SS-35 Lab Sample ID: R1141-2 File ID: GR1141-2A70
Compound RT Est. Conc. Q

Branched Alkane 15.42 89.86 J
Straight-Chain Alkane 16.94 104.6 J
Branched Alkane 18.75 252.3 J
Straight-Chain Alkane 19.27 411.6 J

DATA REPORTING QUALIFIERS

On the Form 1, under the column labeled "Q" for qualifier, each result is flagged with the specific data reporting qualifiers listed below, as appropriate. Up to five qualifiers may be reported on Form 1 for each compound. The qualifiers used are:

- U : This flag indicates the compound was analyzed for but not detected. The Contract Required Quantitation Limit (CRQL) (or Reporting Limit) will be adjusted to reflect any dilution and for soils, the percent moisture.
- J : This flag indicates an estimated value. The flag is used as detailed below:
1. When estimating a concentration for tentatively identified compounds (TICs) where a response factor of 1.0 is assumed for the TIC analyte.
 2. When the mass spectral and retention time data indicate the presence of a compound that meets the volatile and semivolatile GC/MS identification criteria and the result is less than the CRQL (or Reporting Limit) but greater than zero.
 3. When the retention time data indicates the presence of a compound that meets the pesticide/Aroclor or other GC or HPLC identification criteria and the result is less than the CRQL (or Reporting Limit) but greater than zero. For example, if the CRQL (or Reporting Limit) is 10 ug/L but a concentration of 3 ug/L is calculated, it is reported as 3J.
- N : This flag indicates presumptive evidence of a compound. This flag is only used for TICs, where the identification is based on a mass spectral library search. For generic characterization of a TIC such as 'chlorinated hydrocarbon', the N flag is not used.
- P : In the EPA's Contract Laboratory Program (CLP), this flag is used for a pesticide/Aroclor target analyte, when there is greater than 25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form 1 and flagged with a P. For SW-846 GC and HPLC analyses, when the Relative Percent Difference (RPD) is greater than 40% and there is no evidence of chromatographic anomalies or interferences, then the higher of the two values is reported and flagged with a P. When the RPD is equal to or less than 40%, our policy is to also report the higher of the two values, although the choice could be a project specific issue.
- C : This flag applies to GC or HPLC results where the identification has been confirmed by GC/MS. If GC/MS confirmation was attempted but was unsuccessful, this flag is not applied; a laboratory-defined flag is used instead (see the X/Y/Z qualifier).

DATA REPORTING QUALIFIERS (continued)

ORIGINAL

- B : This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates probable blank contamination and warns the data user to take appropriate action. This flag is used for a TIC as well as for a positively identified target compound. The combination of flags BU or UB is not an allowable policy. Blank contaminants are flagged B only when they are detected in the sample.
- E : This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis. If one or more compounds have a response greater than the upper level of the calibration range, the sample or extract will be diluted and reanalyzed. All such compounds with a response greater than the upper level of the calibration range will have the concentration flagged with an E on Form 1 for the original analysis.
- D : If a sample or extract is reanalyzed at a higher dilution factor, for example when the concentration of an analyte exceeds the upper calibration range, the DL suffix is appended to the sample number on Form 1 for the more diluted sample and all reported concentrations on that Form 1 are flagged with the D flag. This flag alerts data users that any discrepancies between the reported concentrations may be due to dilution of the sample or extract.

NOTE 1: The D flag is not applied to compounds which are not detected in the sample analysis i.e. compounds reported with the CRQL (or Reporting Limit) and the U flag.

NOTE 2: Separate Form 1s are used for reporting the original analysis (Client Sample No. XXXXX) and the more diluted sample analysis (Client Sample No. XXXXXDL) i.e. the results from both analyses are not combined on a single Form 1.

A : This flag indicates that a TIC is a suspected aldol-condensation product.

S : This flag indicates that an analyte was detected by a single column GC analysis but the result was below the Reporting Limit. This flag is only used when clients request a second (confirmation) column analysis after detecting an analyte above the Reporting Limit in the initial, single column analysis. This flag alerts the data user that only an analyte was detected below the Reporting Limit and a second (confirmation) analysis was not performed.

X/Y/Z: Other specific flags may be required to properly define the results. If used, the flags will be fully described in the SDG Narrative. The laboratory-defined flags are limited to X, Y and Z.

B. Form I and Form I - TIC

Organic Analysis Data Sheet (OADS) and
Tentatively Identified Compounds (TICs)

- All samples by fraction (VOA, SV, PEST)
 - alphanumeric order within each fraction

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BG-04

Lab Name: COMPUCHEM

Contract: 68-S5-3002

Lab Code: LIBRTY Case No.:

SAS No.:

SDG No.: R1141

Matrix: (soil/water) SOIL

Lab Sample ID: R1141-4

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: GR1141-4A70

Level: (low/med) LOW

Date Received: 02/15/00

% Moisture: 18 decanted: (Y/N) N

Date Extracted: 02/15/00

Concentrated Extract Volume: 500 (uL)

Date Analyzed: 02/18/00

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 3.7

Extraction: (Type) SONC

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

CAS NO. COMPOUND

100-52-7	Benzaldehyde	400	U
108-95-2	Phenol	400	U
111-44-4	bis(2-Chloroethyl)ether	400	U
95-57-8	2-Chlorophenol	400	U
95-48-7	2-Methylphenol	400	U
108-60-1	2,2'-oxybis(1-Chloropropane)	400	U
98-86-2	Acetophenone	400	U
106-44-5	4-Methylphenol	400	U
621-64-7	N-Nitroso-di-n-propylamine	400	U
67-72-1	Hexachloroethane	400	U
98-95-3	Nitrobenzene	400	U
78-59-1	Isophorone	400	U
88-75-5	2-Nitrophenol	400	U
105-67-9	2,4-Dimethylphenol	400	U
111-91-1	bis(2-Chloroethoxy)methane	400	U
120-83-2	2,4-Dichlorophenol	400	U
91-20-3	Naphthalene	400	U
106-47-8	4-Chloroaniline	400	U
87-68-3	Hexachlorobutadiene	400	U
105-60-2	Caprolactam	400	U
59-50-7	4-Chloro-3-methylphenol	400	U
91-57-6	2-Methylnaphthalene	400	U
77-47-4	Hexachlorocyclopentadiene	400	U
88-06-2	2,4,6-Trichlorophenol	400	U
95-95-4	2,4,5-Trichlorophenol	1000	U
92-52-4	1,1'-Biphenyl	400	U
91-58-7	2-Choronaphthalene	400	U
88-74-4	2-Nitroaniline	1000	U
131-11-3	Dimethylphthalate	400	U
606-20-2	2,6-Dinitrotoluene	400	U
208-96-8	Acenaphthylene	400	U
99-09-2	3-Nitroaniline	1000	U
83-32-9	Acenaphthene	400	U

FORM I SV-1

OLM04..

1D
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BG-04 ✓

Lab Name: COMPUCHEM

Contract: 68-S5-3002

Lab Code: LIBRTY Case No.:

SAS No.:

SDG No.: R1141

Matrix: (soil/water) SOIL

Lab Sample ID: R1141-4

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: GR1141-4A70

Level: (low/med) LOW

Date Received: 02/15/00

% Moisture: 18 decanted: (Y/N) N

Date Extracted: 02/15/00

Concentrated Extract Volume: 500 (uL)

Date Analyzed: 02/18/00

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 3.7

Extraction: (Type) SONC

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	UG/KG	Q
51-28-5	2,4-Dinitrophenol	1000	U
100-02-7	4-Nitrophenol	1000	U
132-64-9	Dibenzofuran	400	U
121-14-2	2,4-Dinitrotoluene	400	U
84-66-2	Diethylphthalate	400	U
86-73-7	Fluorene	400	U
7005-72-3	4-Chlorophenyl-phenylether	400	U
100-01-6	4-Nitroaniline	1000	U
534-52-1	4,6-Dinitro-2-methylphenol	1000	U
86-30-6	N-nitrosodiphenylamine (1)	400	U
101-55-3	4-Bromophenyl-phenylether	400	U
118-74-1	Hexachlorobenzene	400	U
1912-24-9	Atrazine	400	U
87-86-5	Pentachlorophenol	1000	U
85-01-8	Phenanthrene	400	U
120-12-7	Anthracene	400	U
86-74-8	Carbazole	400	U
84-74-2	Di-n-butylphthalate	400	U
206-44-0	Fluoranthene	44	J
129-00-0	Pyrene	46	J
85-68-7	Butylbenzylphthalate	400	U
91-94-1	3,3'-Dichlorobenzidine	400	U
56-55-3	Benzo(a)anthracene	400	U
218-01-9	Chrysene	61	J
117-81-7	bis(2-Ethylhexyl)phthalate	400	U
117-84-0	Di-n-octylphthalate	400	U
205-99-2	Benzo(b)fluoranthene	43	J
207-08-9	Benzo(k)fluoranthene	400	U
50-32-8	Benzo(a)pyrene	400	U
193-39-5	Indeno(1,2,3-cd)pyrene	400	U
53-70-3	Dibenzo(a,h)anthracene	400	U
191-24-2	Benzo(g,h,i)perylene	400	U

(1) - Cannot be separated from Diphenylamine

FORM I SV-2

OLM04..

1G
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BG-04

Lab Name: COMPUCHEM

Contract: 68-S5-3002

Lab Code: LIBRTY Case No.:

SAS No.:

SDG No.: R1141

Matrix: (soil/water) SOIL

Lab Sample ID: R1141-4

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: GR1141-4A70

Level: (low/med) LOW

Date Received: 02/15/00

% Moisture: 18 Decanted: (Y/N) N

Date Extracted: 02/15/00

Concentrated Extract Volume: 500 (uL)

Date Analyzed: 02/18/00

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 3.7

Extraction: (Type) SONC

Number TICs found: 15

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	4.67	1100	J
2.	UNKNOWN (BC)	4.87	640	JB
3.	UNKNOWN	16.52	130	J
4.	UNKNOWN	17.48	320	J
5.	UNKNOWN	18.39	130	J
6.	UNKNOWN	19.42	170	J
7.	UNKNOWN	20.01	100	J
8.	UNKNOWN	21.01	370	J
9.	UNKNOWN	21.28	520	J
10.	UNKNOWN	21.37	270	J
11.	UNKNOWN	21.47	320	J
12.	UNKNOWN	21.79	210	J
13.	UNKNOWN	22.24	150	J
14.	UNKNOWN	22.89	110	J
15.	UNKNOWN	23.16	320	J
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

FORM I SV-TIC

OLM04.2

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SS-34

Lab Name: COMPUCHEM

Contract: 68-S5-3002

Lab Code: LIBRTY Case No.:

SAS No.:

SDG No.: R1141

Matrix: (soil/water) SOIL

Lab Sample ID: R1141-1

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: GR1141-1B70

Level: (low/med) LOW

Date Received: 02/15/00

% Moisture: 30 decanted: (Y/N) N

Date Extracted: 02/15/00

Concentrated Extract Volume: 500 (uL)

Date Analyzed: 02/18/00

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.7

Extraction: (Type) SONC

CAS NO. COMPOUND

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

100-52-7	Benzaldehyde	470	U
108-95-2	Phenol	470	U
111-44-4	bis(2-Chloroethyl)ether	470	U
95-57-8	2-Chlorophenol	470	U
95-48-7	2-Methylphenol	470	U
108-60-1	2,2'-oxybis(1-Chloropropane)	470	U
98-86-2	Acetophenone	470	U
106-44-5	4-Methylphenol	470	U
621-64-7	N-Nitroso-di-n-propylamine	470	U
67-72-1	Hexachloroethane	470	U
98-95-3	Nitrobenzene	470	U
78-59-1	Isophorone	470	U
88-75-5	2-Nitrophenol	470	U
105-67-9	2,4-Dimethylphenol	470	U
111-91-1	bis(2-Chloroethoxy)methane	470	U
120-83-2	2,4-Dichlorophenol	470	U
91-20-3	Naphthalene	470	U
106-47-8	4-Chloroaniline	470	U
87-68-3	Hexachlorobutadiene	470	U
105-60-2	Caprolactam	470	U
59-50-7	4-Chloro-3-methylphenol	470	U
91-57-6	2-Methylnaphthalene	470	U
77-47-4	Hexachlorocyclopentadiene	470	U
88-06-2	2,4,6-Trichlorophenol	470	U
95-95-4	2,4,5-Trichlorophenol	1200	U
92-52-4	1,1'-Biphenyl	470	U
91-58-7	2-Chloronaphthalene	470	U
88-74-4	2-Nitroaniline	1200	U
131-11-3	Dimethylphthalate	470	U
606-20-2	2,6-Dinitrotoluene	470	U
208-96-8	Acenaphthylene	470	U
99-09-2	3-Nitroaniline	1200	U
83-32-9	Acenaphthene	470	U

FORM I SV-1

OLM04..

1D
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SS-34

Lab Name: COMPUCHEM

Contract: 68-S5-3002

Lab Code: LIBRTY Case No.:

SAS No.: SDG No.: R1141

Matrix: (soil/water) SOIL

Lab Sample ID: R1141-1

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: GR1141-1B70

Level: (low/med) LOW

Date Received: 02/15/00

% Moisture: 30 decanted: (Y/N) N

Date Extracted: 02/15/00

Concentrated Extract Volume: 500 (uL)

Date Analyzed: 02/18/00

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.7

Extraction: (Type) SONC

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

CAS NO. COMPOUND

51-28-5	2,4-Dinitrophenol	1200	U
100-02-7	4-Nitrophenol	1200	U
132-64-9	Dibenzofuran	470	U
121-14-2	2,4-Dinitrotoluene	470	U
84-66-2	Diethylphthalate	470	U
86-73-7	Fluorene	470	U
7005-72-3	4-Chlorophenyl-phenylether	470	U
100-01-6	4-Nitroaniline	1200	U
534-52-1	4,6-Dinitro-2-methylphenol	1200	U
86-30-6	N-nitrosodiphenylamine (1)	470	U
101-55-3	4-Bromophenyl-phenylether	470	U
118-74-1	Hexachlorobenzene	470	U
1912-24-9	Atrazine	470	U
87-86-5	Pentachlorophenol	1200	U
85-01-8	Phenanthrene	96	J
120-12-7	Anthracene	470	U
86-74-8	Carbazole	470	U
84-74-2	Di-n-butylphthalate	470	U
206-44-0	Fluoranthene	280	J
129-00-0	Pyrene	270	J
85-68-7	Butylbenzylphthalate	470	U
91-94-1	3,3'-Dichlorobenzidine	470	U
56-55-3	Benzo(a)anthracene	180	J
218-01-9	Chrysene	230	J
117-81-7	bis(2-Ethylhexyl)phthalate	260	J
117-84-0	Di-n-octylphthalate	470	U
205-99-2	Benzo(b)fluoranthene	240	J
207-08-9	Benzo(k)fluoranthene	140	J
50-32-8	Benzo(a)pyrene	150	J
193-39-5	Indeno(1,2,3-cd)pyrene	120	J
53-70-3	Dibenzo(a,h)anthracene	470	U
191-24-2	Benzo(g,h,i)perylene	64	J

(1) - Cannot be separated from Diphenylamine

FORM I SV-2

OLM04..

1G
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE

ORIGINAL

SS-34

Lab Name: COMPUCHEM

Contract: 68-S5-3002

Lab Code: LIBRTY Case No.:

SAS No.:

SDG No.: R1141

Matrix: (soil/water) SOIL

Lab Sample ID: R1141-1

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: GR1141-1B70

Level: (low/med) LOW

Date Received: 02/15/00

% Moisture: 30 Decanted: (Y/N) N

Date Extracted: 02/15/00

Concentrated Extract Volume: 500 (uL)

Date Analyzed: 02/18/00

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.7

Extraction: (Type) SONC

Number TICs found: 15

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	4.65	450	J
2.	UNKNOWN (BC)	4.87	640	JB
3. 130-15-4	1, 4 -NAPHTHALENEDIONE	9.62	110	NJ
4.	UNKNOWN	10.42	2400	J
5.	UNKNOWN	10.91	160	J
6.	UNKNOWN	16.35	110	J
7.	BENZOFLUORANTHENE	18.36	230	J
8.	UNKNOWN	18.63	160	J
9.	UNKNOWN	21.47	170	J
10.	UNKNOWN	21.54	240	J
11.	UNKNOWN	22.25	370	J
12.	UNKNOWN	22.72	190	J
13.	UNKNOWN	23.16	190	J
14.	UNKNOWN	23.28	370	J
15.	UNKNOWN	26.08	950	J
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FORM I SV-TIC

OLM04.2

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEETEPA SAMPLE NO. *101141*

Lab Name: COMPUCHEM

Contract: 68-S5-3002

SS-35 ✓

Lab Code: LIBRTY Case No.:

SAS No.: SDG No.: R1141

Matrix: (soil/water) SOIL

Lab Sample ID: R1141-2

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: GR1141-2A70

Level: (low/med) LOW

Date Received: 02/15/00

% Moisture: 23 decanted: (Y/N) N

Date Extracted: 02/15/00

Concentrated Extract Volume: 500 (uL)

Date Analyzed: 02/18/00

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.0

Extraction: (Type) SONC

CAS NO. COMPOUND

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

100-52-7	Benzaldehyde	430	U
108-95-2	Phenol	430	U
111-44-4	bis(2-Chloroethyl)ether	430	U
95-57-8	2-Chlorophenol	430	U
95-48-7	2-Methylphenol	430	U
108-60-1	2,2'-oxybis(1-Chloropropane)	430	U
98-86-2	Acetophenone	430	U
106-44-5	4-Methylphenol	430	U
621-64-7	N-Nitroso-di-n-propylamine	430	U
67-72-1	Hexachloroethane	430	U
98-95-3	Nitrobenzene	430	U
78-59-1	Isophorone	430	U
88-75-5	2-Nitrophenol	430	U
105-67-9	2,4-Dimethylphenol	430	U
111-91-1	bis(2-Chloroethoxy)methane	430	U
120-83-2	2,4-Dichlorophenol	430	U
91-20-3	Naphthalene	62	J
106-47-8	4-Chloroaniline	430	U
87-68-3	Hexachlorobutadiene	430	U
105-60-2	Caprolactam	430	U
59-50-7	4-Chloro-3-methylphenol	430	U
91-57-6	2-Methylnaphthalene	53	J
77-47-4	Hexachlorocyclopentadiene	430	U
88-06-2	2,4,6-Trichlorophenol	430	U
95-95-4	2,4,5-Trichlorophenol	1100	U
92-52-4	1,1'-Biphenyl	430	U
91-58-7	2-Chloronaphthalene	430	U
88-74-4	2-Nitroaniline	1100	U
131-11-3	Dimethylphthalate	430	U
606-20-2	2,6-Dinitrotoluene	430	U
208-96-8	Acenaphthylene	45	J
99-09-2	3-Nitroaniline	1100	U
83-32-9	Acenaphthene	170	J

FORM I SV-1

OLM04..

1D
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SS-35 ✓
ORIGINAL

Lab Name: COMPUCHEM

Contract: 68-S5-3002

Lab Code: LIBRTY Case No.:

SAS No.: SDG No.: R1141

Matrix: (soil/water) SOIL

Lab Sample ID: R1141-2

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: GR1141-2A70

Level: (low/med) LOW

Date Received: 02/15/00

% Moisture: 23 decanted: (Y/N) N

Date Extracted: 02/15/00

Concentrated Extract Volume: 500 (uL)

Date Analyzed: 02/18/00

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.0

Extraction: (Type) SONC

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

CAS NO. COMPOUND

51-28-5	2,4-Dinitrophenol	1100	U
100-02-7	4-Nitrophenol	1100	U
132-64-9	Dibenzofuran	110	J
121-14-2	2,4-Dinitrotoluene	430	U
84-66-2	Diethylphthalate	430	U
86-73-7	Fluorene	150	J
7005-72-3	4-Chlorophenyl-phenylether	430	U
100-01-6	4-Nitroaniline	1100	U
534-52-1	4,6-Dinitro-2-methylphenol	1100	U
86-30-6	N-nitrosodiphenylamine (1)	430	U
101-55-3	4-Bromophenyl-phenylether	430	U
118-74-1	Hexachlorobenzene	430	U
1912-24-9	Atrazine	430	U
87-86-5	Pentachlorophenol	1100	U
85-01-8	Phenanthrene	1400	
120-12-7	Anthracene	370	J
86-74-8	Carbazole	140	J
84-74-2	Di-n-butylphthalate	44	J
206-44-0	Fluoranthene	1600	
129-00-0	Pyrene	1400	
85-68-7	Butylbenzylphthalate	84	J
91-94-1	3,3'-Dichlorobenzidine	430	U
56-55-3	Benzo(a)anthracene	700	
218-01-9	Chrysene	810	
117-81-7	bis(2-Ethylhexyl)phthalate	1500	
117-84-0	Di-n-octylphthalate	430	U
205-99-2	Benzo(b)fluoranthene	500	
207-08-9	Benzo(k)fluoranthene	620	
50-32-8	Benzo(a)pyrene	580	
193-39-5	Indeno(1,2,3-cd)pyrene	400	J
53-70-3	Dibenzo(a,h)anthracene	180	J
191-24-2	Benzo(g,h,i)perylene	230	J

(1) - Cannot be separated from Diphenylamine

1G
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
ORIGINAL
SS-35

Lab Name: COMPUCHEM

Contract: 68-S5-3002

Lab Code: LIBRTY Case No.:

SAS No.: SDG No.: R1141

Matrix: (soil/water) SOIL

Lab Sample ID: R1141-2

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: GR1141-2A70

Level: (low/med) LOW

Date Received: 02/15/00

% Moisture: 23 Decanted: (Y/N) N

Date Extracted: 02/15/00

Concentrated Extract Volume: 500 (uL)

Date Analyzed: 02/18/00

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.0

Extraction: (Type) SONC

Number TICs found: 19

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	4.65	770	J
2.	UNKNOWN (BC)	4.87	720	JB
3.	UNKNOWN	13.20	220	J
4.	METHYLANTHRACENE	13.24	260	J
5.	CYCLOPENTAPHENANTHRENE	13.36	460	J
6.	UNKNOWN	13.68	370	J
7. 243-42-5	BENZO [B] NAPHTHO [2,3-D] FURAN	14.79	120	NJ
8. 243-17-4	11H-BENZO [B] FLUORENE	14.96	89	NJ
9. 243-17-4	11H-BENZO [B] FLUORENE	15.13	170	NJ
10.	UNKNOWN	16.11	96	J
11.	BENZOPYRENE	18.09	2100	J
12.	UNKNOWN	18.24	200	J
13.	BENZOPYRENE	18.31	590	J
14.	UNKNOWN	18.64	250	J
15.	UNKNOWN	18.86	230	J
16.	UNKNOWN	18.98	260	J
17.	UNKNOWN	19.81	150	J
18.	UNKNOWN	19.93	110	J
19. 191-30-0	DIBENZO [DEF, P] CHRYSENE	23.17	110	NJ
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FORM I SV-TIC

OLM04.2

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE

ORIGINAL

Lab Name: COMPUCHEM

Contract: 68-S5-3002

SS-36

Lab Code: LIBRTY Case No.:

SAS No.: SDG No.: R1141

Matrix: (soil/water) SOIL

Lab Sample ID: R1141-3

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: GR1141-3A70

Level: (low/med) LOW

Date Received: 02/15/00

% Moisture: 24 decanted: (Y/N) N

Date Extracted: 02/15/00

Concentrated Extract Volume: 500 (uL)

Date Analyzed: 02/18/00

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.4 Extraction: (Type) SONC

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

CAS NO. COMPOUND

100-52-7	Benzaldehyde	430	U
108-95-2	Phenol	430	U
111-44-4	bis(2-Chloroethyl)ether	430	U
95-57-8	2-Chlorophenol	430	U
95-48-7	2-Methylphenol	430	U
108-60-1	2,2'-oxybis(1-Chloropropane)	430	U
98-86-2	Acetophenone	430	U
106-44-5	4-Methylphenol	430	U
621-64-7	N-Nitroso-di-n-propylamine	430	U
67-72-1	Hexachloroethane	430	U
98-95-3	Nitrobenzene	430	U
78-59-1	Isophorone	430	U
88-75-5	2-Nitrophenol	430	U
105-67-9	2,4-Dimethylphenol	430	U
111-91-1	bis(2-Chloroethoxy)methane	430	U
120-83-2	2,4-Dichlorophenol	430	U
91-20-3	Naphthalene	430	U
106-47-8	4-Chloroaniline	430	U
87-68-3	Hexachlorobutadiene	430	U
105-60-2	Caprolactam	430	U
59-50-7	4-Chloro-3-methylphenol	430	U
91-57-6	2-Methylnaphthalene	430	U
77-47-4	Hexachlorocyclopentadiene	430	U
88-06-2	2,4,6-Trichlorophenol	430	U
95-95-4	2,4,5-Trichlorophenol	1100	U
92-52-4	1,1'-Biphenyl	430	U
91-58-7	2-Chloronaphthalene	430	U
88-74-4	2-Nitroaniline	1100	U
131-11-3	Dimethylphthalate	430	U
606-20-2	2,6-Dinitrotoluene	430	U
208-96-8	Acenaphthylene	430	U
99-09-2	3-Nitroaniline	1100	U
83-32-9	Acenaphthene	430	U

FORM I SV-1

OLM04..

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ORIGINAL ✓
SS-36 ✓

Lab Name: COMPUCHEM

Contract: 68-S5-3002

Lab Code: LIBRTY Case No.:

SAS No.: SDG No.: R1141

Matrix: (soil/water) SOIL

Lab Sample ID: R1141-3

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: GR1141-3A70

Level: (low/med) LOW

Date Received: 02/15/00

% Moisture: 24 decanted: (Y/N) N

Date Extracted: 02/15/00

Concentrated Extract Volume: 500 (uL)

Date Analyzed: 02/18/00

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.4

Extraction: (Type) SONC

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

CAS NO. COMPOUND

51-28-5	2,4-Dinitrophenol	1100	U
100-02-7	4-Nitrophenol	1100	U
132-64-9	Dibenzofuran	430	U
121-14-2	2,4-Dinitrotoluene	430	U
84-66-2	Diethylphthalate	430	U
86-73-7	Fluorene	430	U
7005-72-3	4-Chlorophenyl-phenylether	430	U
100-01-6	4-Nitroaniline	1100	U
534-52-1	4,6-Dinitro-2-methylphenol	1100	U
86-30-6	N-nitrosodiphenylamine (1)	430	U
101-55-3	4-Bromophenyl-phenylether	430	U
118-74-1	Hexachlorobenzene	430	U
1912-24-9	Atrazine	430	U
87-86-5	Pentachlorophenol	1100	U
85-01-8	Phenanthrene	430	U
120-12-7	Anthracene	430	U
86-74-8	Carbazole	430	U
84-74-2	Di-n-butylphthalate	430	U
206-44-0	Fluoranthene	57	J
129-00-0	Pyrene	66	J
85-68-7	Butylbenzylphthalate	430	U
91-94-1	3,3'-Dichlorobenzidine	430	U
56-55-3	Benzo(a)anthracene	44	J
218-01-9	Chrysene	66	J
117-81-7	bis(2-Ethylhexyl)phthalate	200	J
117-84-0	Di-n-octylphthalate	430	U
205-99-2	Benzo(b)fluoranthene	64	J
207-08-9	Benzo(k)fluoranthene	430	U
50-32-8	Benzo(a)pyrene	47	J
193-39-5	Indeno(1,2,3-cd)pyrene	430	U
53-70-3	Dibenzo(a,h)anthracene	430	U
191-24-2	Benzo(g,h,i)perylene	430	U

(1) - Cannot be separated from Diphenylamine

1G
SEMICVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SS-36

Lab Name: COMPUCHEM

Contract: 68-S5-3002

Lab Code: LIBRTY Case No.:

SAS No.:

SDG No.: R1141

Matrix: (soil/water) SOIL

Lab Sample ID: R1141-3

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: GR1141-3A70

Level: (low/med) LOW

Date Received: 02/15/00

% Moisture: 24 Decanted: (Y/N) N

Date Extracted: 02/15/00

Concentrated Extract Volume: 500(uL)

Date Analyzed: 02/18/00

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.4

Extraction: (Type) SONC

Number TICs found: 6

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	4.67	310	J
2.	UNKNOWN (BC)	4.87	860	JB
3.	UNKNOWN	18.65	160	J
4.	UNKNOWN	19.79	93	J
5.	UNKNOWN	22.24	110	J
6.	UNKNOWN	23.16	1000	J
7.				
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FORM I SV-TIC

OLM04.2

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO:

SS-37

Lab Name: COMPUCHEM

Contract: 68-S5-3002

Lab Code: LIBRTY Case No.:

SAS No.: SDG No.: R1141

Matrix: (soil/water) SOIL

Lab Sample ID: R1141-5

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: GR1141-5B70

Level: (low/med) LOW

Date Received: 02/15/00

% Moisture: 20 decanted: (Y/N) N

Date Extracted: 02/15/00

Concentrated Extract Volume: 500 (uL)

Date Analyzed: 02/18/00

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.2

Extraction: (Type) SONC

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

CAS NO. COMPOUND

100-52-7	Benzaldehyde	410	U
108-95-2	Phenol	410	U
111-44-4	bis(2-Chloroethyl)ether	410	U
95-57-8	2-Chlorophenol	410	U
95-48-7	2-Methylphenol	410	U
108-60-1	2,2'-oxybis(1-Chloropropane)	410	U
98-86-2	Acetophenone	410	U
106-44-5	4-Methylphenol	410	U
621-64-7	N-Nitroso-di-n-propylamine	410	U
67-72-1	Hexachloroethane	410	U
98-95-3	Nitrobenzene	410	U
78-59-1	Isophorone	410	U
88-75-5	2-Nitrophenol	410	U
105-67-9	2,4-Dimethylphenol	410	U
111-91-1	bis(2-Chloroethoxy)methane	410	U
120-83-2	2,4-Dichlorophenol	410	U
91-20-3	Naphthalene	410	U
106-47-8	4-Chloroaniline	410	U
87-68-3	Hexachlorobutadiene	410	U
105-60-2	Caprolactam	410	U
59-50-7	4-Chloro-3-methylphenol	410	U
91-57-6	2-Methylnaphthalene	410	U
77-47-4	Hexachlorocyclopentadiene	410	U
88-06-2	2,4,6-Trichlorophenol	410	U
95-95-4	2,4,5-Trichlorophenol	1000	U
92-52-4	1,1'-Biphenyl	410	U
91-58-7	2-Chloronaphthalene	410	U
88-74-4	2-Nitroaniline	1000	U
131-11-3	Dimethylphthalate	410	U
606-20-2	2,6-Dinitrotoluene	410	U
208-96-8	Acenaphthylene	410	U
99-09-2	3-Nitroaniline	1000	U
83-32-9	Acenaphthene	410	U

FORM I SV-1

OLM04..

1D
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SS-37

Lab Name: COMPUCHEM

Contract: 68-S5-3002

Lab Code: LIBRTY Case No.:

SAS No.:

SDG No.: R1141

Matrix: (soil/water) SOIL

Lab Sample ID: R1141-5

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: GR1141-5B70

Level: (low/med) LOW

Date Received: 02/15/00

% Moisture: 20 decanted: (Y/N) N

Date Extracted: 02/15/00

Concentrated Extract Volume: 500 (uL)

Date Analyzed: 02/18/00

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.2

Extraction: (Type) SONC

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

CAS NO. COMPOUND

51-28-5	2, 4-Dinitrophenol	1000	U
100-02-7	4-Nitrophenol	1000	U
132-64-9	Dibenzofuran	410	U
121-14-2	2, 4-Dinitrotoluene	410	U
84-66-2	Diethylphthalate	410	U
86-73-7	Fluorene	410	U
7005-72-3	4-Chlorophenyl-phenylether	410	U
100-01-6	4-Nitroaniline	1000	U
534-52-1	4, 6-Dinitro-2-methylphenol	1000	U
86-30-6	N-nitrosodiphenylamine (1)	410	U
101-55-3	4-Bromophenyl-phenylether	410	U
118-74-1	Hexachlorobenzene	410	U
1912-24-9	Atrazine	410	U
87-86-5	Pentachlorophenol	1000	U
85-01-8	Phenanthrene	45	J
120-12-7	Anthracene	410	U
86-74-8	Carbazole	410	U
84-74-2	Di-n-butylphthalate	410	U
206-44-0	Fluoranthene	89	J
129-00-0	Pyrene	72	J
85-68-7	Butylbenzylphthalate	410	U
91-94-1	3, 3'-Dichlorobenzidine	410	U
56-55-3	Benzo(a)anthracene	410	U
218-01-9	Chrysene	63	J
117-81-7	bis(2-Ethylhexyl)phthalate	450	
117-84-0	Di-n-octylphthalate	410	U
205-99-2	Benzo(b)fluoranthene	84	XJ
207-08-9	Benzo(k)fluoranthene	71	XJ
50-32-8	Benzo(a)pyrene	42	J
193-39-5	Indeno(1, 2, 3-cd)pyrene	410	U
53-70-3	Dibenzo(a, h)anthracene	410	U
191-24-2	Benzo(g, h, i)perylene	410	U

(1) - Cannot be separated from Diphenylamine

FORM I SV-2

OLM04..

1G
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SS-37

ORIGINAL

Lab Name: COMPUCHEM

Contract: 68-S5-3002

Lab Code: LIBRTY Case No.:

SAS No.:

SDG No.: R1141

Matrix: (soil/water) SOIL

Lab Sample ID: R1141-5

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: GR1141-5B70

Level: (low/med) LOW

Date Received: 02/15/00

% Moisture: 20 Decanted: (Y/N) N

Date Extracted: 02/15/00

Concentrated Extract Volume: 500 (uL)

Date Analyzed: 02/18/00

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.2

Extraction: (Type) SONC

Number TICs found: 8

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	4.66	330	J
2.	UNKNOWN (BC)	4.88	780	JB
3.	UNKNOWN	13.94	140	J
4.	UNKNOWN	15.78	140	J
5.	UNKNOWN	18.04	130	J
6.	UNKNOWN	21.02	100	J
7.	UNKNOWN	21.46	130	J
8.	UNKNOWN	22.23	210	J
9.				
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FORM I SV-TIC

OLM04.2

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SS-37MS

Lab Name: COMPUCHEM

Contract: 68-S5-3002

Lab Code: LIBRTY Case No.:

SAS No.:

SDG No.: R1141

Matrix: (soil/water) SOIL

Lab Sample ID: WG1499-5

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: GWG14995B70

Level: (low/med) LOW

Date Received: 02/15/00

% Moisture: 20 decanted: (Y/N) N

Date Extracted: 02/15/00

Concentrated Extract Volume: 500 (uL)

Date Analyzed: 02/18/00

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.2

Extraction: (Type) SONC

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

CAS NO. COMPOUND

100-52-7	Benzaldehyde	410	U
108-95-2	Phenol	2100	
111-44-4	bis(2-Chloroethyl)ether	410	U
95-57-8	2-Chlorophenol	2600	
95-48-7	2-Methylphenol	410	U
108-60-1	2,2'-oxybis(1-Chloropropane)	410	U
98-86-2	Acetophenone	410	U
106-44-5	4-Methylphenol	410	U
621-64-7	N-Nitroso-di-n-propylamine	1700	
67-72-1	Hexachloroethane	410	U
98-95-3	Nitrobenzene	410	U
78-59-1	Isophorone	410	U
88-75-5	2-Nitrophenol	410	U
105-67-9	2,4-Dimethylphenol	410	U
111-91-1	bis(2-Chloroethoxy)methane	410	U
120-83-2	2,4-Dichlorophenol	410	U
91-20-3	Naphthalene	410	U
106-47-8	4-Chloroaniline	410	U
87-68-3	Hexachlorobutadiene	410	U
105-60-2	Caprolactam	410	U
59-50-7	4-Chloro-3-methylphenol	2700	
91-57-6	2-Methylnaphthalene	410	U
77-47-4	Hexachlorocyclopentadiene	410	U
88-06-2	2,4,6-Trichlorophenol	410	U
95-95-4	2,4,5-Trichlorophenol	1000	U
92-52-4	1,1'-Biphenyl	410	U
91-58-7	2-Choronaphthalene	410	U
88-74-4	2-Nitroaniline	1000	U
131-11-3	Dimethylphthalate	410	U
606-20-2	2,6-Dinitrotoluene	410	U
208-96-8	Acenaphthylene	410	U
99-09-2	3-Nitroaniline	1000	U
83-32-9	Acenaphthene	1600	

FORM I SV-1

OLM04.2

1D
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ORIGINAL
SS-37MS

Lab Name: COMPUCHEM

Contract: 68-S5-3002

Lab Code: LIBRTY Case No.:

SAS No.:

SDG No.: R1141

Matrix: (soil/water) SOIL

Lab Sample ID: WG1499-5

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: GWG14995B70

Level: (low/med) LOW

Date Received: 02/15/00

% Moisture: 20 decanted: (Y/N) N

Date Extracted: 02/15/00

Concentrated Extract Volume: 500 (uL)

Date Analyzed: 02/18/00

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.2

Extraction: (Type) SONC

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

CAS NO. COMPOUND

51-28-5	2,4-Dinitrophenol	1000	U
100-02-7	4-Nitrophenol	3200	
132-64-9	Dibenzofuran	410	U
121-14-2	2,4-Dinitrotoluene	1800	
84-66-2	Diethylphthalate	410	U
86-73-7	Fluorene	410	U
7005-72-3	4-Chlorophenyl-phenylether	410	U
100-01-6	4-Nitroaniline	1000	U
534-52-1	4,6-Dinitro-2-methylphenol	1000	U
86-30-6	N-nitrosodiphenylamine (1)	410	U
101-55-3	4-Bromophenyl-phenylether	410	U
118-74-1	Hexachlorobenzene	410	U
1912-24-9	Atrazine	410	U
87-86-5	Pentachlorophenol	2500	
85-01-8	Phenanthrene	410	U
120-12-7	Anthracene	410	U
86-74-8	Carbazole	410	U
84-74-2	Di-n-butylphthalate	410	U
206-44-0	Fluoranthene	70	J
129-00-0	Pyrene	2000	
85-68-7	Butylbenzylphthalate	410	U
91-94-1	3,3'-Dichlorobenzidine	410	U
56-55-3	Benzo(a)anthracene	410	U
218-01-9	Chrysene	58	J
117-81-7	bis(2-Ethylhexyl)phthalate	450	
117-84-0	Di-n-octylphthalate	410	U
205-99-2	Benzo(b)fluoranthene	82	XJ
207-08-9	Benzo(k)fluoranthene	70	XJ
50-32-8	Benzo(a)pyrene	410	U
193-39-5	Indeno(1,2,3-cd)pyrene	410	U
53-70-3	Dibenzo(a,h)anthracene	410	U
191-24-2	Benzo(g,h,i)perylene	410	U

(1) - Cannot be separated from Diphenylamine

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SS-37MSD

Lab Name: COMPUCHEM

Contract: 68-S5-3002

Lab Code: LIBRTY Case No.:

SAS No.:

SDG No.: R1141

Matrix: (soil/water) SOIL

Lab Sample ID: WG1499-6

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: GWG14996B70

Level: (low/med) LOW

Date Received: 02/15/00

% Moisture: 20 decanted: (Y/N) N

Date Extracted: 02/15/00

Concentrated Extract Volume: 500 (uL)

Date Analyzed: 02/18/00

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.2

Extraction: (Type) SONC

CAS NO. COMPOUND

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

100-52-7	Benzaldehyde	410	U
108-95-2	Phenol	2100	
111-44-4	bis(2-Chloroethyl)ether	410	U
95-57-8	2-Chlorophenol	2400	
95-48-7	2-Methylphenol	410	U
108-60-1	2,2'-oxybis(1-Chloropropane)	410	U
98-86-2	Acetophenone	410	U
106-44-5	4-Methylphenol	410	U
621-64-7	N-Nitroso-di-n-propylamine	1500	
67-72-1	Hexachloroethane	410	U
98-95-3	Nitrobenzene	410	U
78-59-1	Isophorone	410	U
88-75-5	2-Nitrophenol	410	U
105-67-9	2,4-Dimethylphenol	410	U
111-91-1	bis(2-Chloroethoxy)methane	410	U
120-83-2	2,4-Dichlorophenol	410	U
91-20-3	Naphthalene	410	U
106-47-8	4-Chloroaniline	410	U
87-68-3	Hexachlorobutadiene	410	U
105-60-2	Caprolactam	410	U
59-50-7	4-Chloro-3-methylphenol	2500	
91-57-6	2-Methylnaphthalene	410	U
77-47-4	Hexachlorocyclopentadiene	410	U
88-06-2	2,4,6-Trichlorophenol	410	U
95-95-4	2,4,5-Trichlorophenol	1000	U
92-52-4	1,1'-Biphenyl	410	U
91-58-7	2-Chloronaphthalene	410	U
88-74-4	2-Nitroaniline	1000	U
131-11-3	Dimethylphthalate	410	U
606-20-2	2,6-Dinitrotoluene	410	U
208-96-8	Acenaphthylene	410	U
99-09-2	3-Nitroaniline	1000	U
83-32-9	Acenaphthene	1600	

FORM I SV-1

OLM04.2

1D
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE

ORIGINAL

Lab Name: COMPUCHEM

Contract: 68-S5-3002

SS-37MSD

Lab Code: LIBRTY Case No.:

SAS No.: SDG No.: R1141

Matrix: (soil/water) SOIL

Lab Sample ID: WG1499-6

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: GWG14996B70

Level: (low/med) LOW

Date Received: 02/15/00

% Moisture: 20 decanted: (Y/N) N

Date Extracted: 02/15/00

Concentrated Extract Volume: 500 (uL)

Date Analyzed: 02/18/00

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.2

Extraction: (Type) SONC

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

CAS NO. COMPOUND

51-28-5	2,4-Dinitrophenol	1000	U
100-02-7	4-Nitrophenol	2700	
132-64-9	Dibenzofuran	410	U
121-14-2	2,4-Dinitrotoluene	1400	
84-66-2	Diethylphthalate	410	U
86-73-7	Fluorene	410	U
7005-72-3	4-Chlorophenyl-phenylether	410	U
100-01-6	4-Nitroaniline	1000	U
534-52-1	4,6-Dinitro-2-methylphenol	1000	U
86-30-6	N-nitrosodiphenylamine (1)	410	U
101-55-3	4-Bromophenyl-phenylether	410	U
118-74-1	Hexachlorobenzene	410	U
1912-24-9	Atrazine	410	U
87-86-5	Pentachlorophenol	1800	
85-01-8	Phenanthrene	410	U
120-12-7	Anthracene	410	U
86-74-8	Carbazole	410	U
84-74-2	Di-n-butylphthalate	410	U
206-44-0	Fluoranthene	54	J
129-00-0	Pyrene	1600	
85-68-7	Butylbenzylphthalate	410	U
91-94-1	3,3'-Dichlorobenzidine	410	U
56-55-3	Benzo(a)anthracene	410	U
218-01-9	Chrysene	47	J
117-81-7	bis(2-Ethylhexyl)phthalate	100	J
117-84-0	Di-n-octylphthalate	410	U
205-99-2	Benzo(b)fluoranthene	72	XJ
207-08-9	Benzo(k)fluoranthene	61	XJ
50-32-8	Benzo(a)pyrene	410	U
193-39-5	Indeno(1,2,3-cd)pyrene	410	U
53-70-3	Dibenzo(a,h)anthracene	410	U
191-24-2	Benzo(g,h,i)perylene	410	U

(1) - Cannot be separated from Diphenylamine

C. Form II

System Monitoring Compound summary (VOA)
and Surrogate spike analysis (SV & PEST)

- By fraction (VOA, SV, PEST) -
- By level (low, medium) -

Original
instrument for data analysis

2D
SOIL SEMIVOLATILE SURROGATE RECOVERY

ORIGINAL

Lab Name: COMPUCHEM

Contract: 68-S5-3002

Lab Code: LIBRTY Case No.:

SAS No.:

SDG No.: R1141

Level: (low/med) LOW

	EPA SAMPLE NO.	S1 (NBZ) #	S2 (FBP) #	S3 (TPH) #	S4 (PHL) #	S5 (2FP) #	S6 (TBP) #	S7 (2CP) #	S8 (DCB) #	TOT OUT
01	SBLKJP	60	72	71	66	63	83	68	64	0
02	SS-37	72	78	77	68	75	92	71	70	0
03	SS-37MS	67	75	71	63	71	86	64	67	0
04	SS-37MSD	76	72	63	62	63	70	61	66	0
05	SS-34	67	67	62	59	52	63	59	50	0
06	SS-36	90	88	86	83	75	89	84	56	0
07	BG-04	72	67	58	60	56	70	60	59	0
08	SS-35	77	80	79	77	70	97	75	49	0
09										
10										
11										
12										
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27										
28										
29										
30										

QC LIMITS

S1 (NBZ)	= Nitrobenzene-d5	(23-120)
S2 (FBP)	= 2-Fluorobiphenyl	(30-115)
S3 (TPH)	= Terphenyl-d14	(18-137)
S4 (PHL)	= Phenol-d5	(24-113)
S5 (2FP)	= 2-Fluorophenol	(25-121)
S6 (TBP)	= 2,4,6-Tribromophenol	(19-122)
S7 (2CP)	= 2-Chlorophenol-d4	(20-130) (advisory)
S8 (DCB)	= 1,2-Dichlorobenzene-d4	(20-130) (advisory)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogate diluted out

D. Form III

Matrix Spike/Matrix Spike Duplicate results

- By fraction (VOA, SV, PEST) -

- By level (low, medium) -

3D
SOIL SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

ORIGINAL

Lab Name: COMPUCHEM

Contract: 68-S5-3002

Lab Code: LIBRTY Case No.:

SAS No.:

SDG No.: R1141

Matrix Spike - EPA Sample No.: SS-37

Level: (low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC. LIMITS REC.
Phenol	3125	0.00	2127	68	26- 90
2-Chlorophenol	3125	0.00	2620	84	25-102
N-Nitroso-di-n-prop. (1)	2083	0.00	1679	81	41-126
4-Chloro-3-methylphenol	3125	0.00	2741	88	26-103
Acenaphthene	2083	0.00	1653	79	31-135
4-Nitrophenol	3125	0.00	3153	101	11-114
2,4-Dinitrotoluene	2083	0.00	1815	87	28- 89
Pentachlorophenol	3125	0.00	2495	80	17-109
Pyrene	2083	72.12	1970	91	35-142

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	REC.
Phenol	3125	2090	67	1	35	26- 90
2-Chlorophenol	3125	2390	76	10	50	25-102
N-Nitroso-di-n-prop. (1)	2083	1513	73	10	38	41-126
4-Chloro-3-methylphenol	3125	2467	79	11	33	26-103
Acenaphthene	2083	1553	75	5	19	31-135
4-Nitrophenol	3125	2715	87	15	50	11-114
2,4-Dinitrotoluene	2083	1374	66	27	47	28- 89
Pentachlorophenol	3125	1852	59	30	47	17-109
Pyrene	2083	1648	76	18	36	35-142

(1) N-Nitroso-di-n-propylamine

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 9 outside limits

Spike Recovery: 0 out of 18 outside limits

COMMENTS: _____

E. Form IV

Method Blank Results

Form IV, Form I, and Form I - TIC

Method blank summary, OADS, and TICs

- All blanks by fraction (VOA, SV, PEST) -
 - By analysis date & time within each fraction -

4B
SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

SBLKJP

Lab Name: COMPUCHEM

Contract: 68-S5-3002

Lab Code: LIBRTY Case No.:

SAS No.: SDG No.: R1141

Lab File ID: GWG14991B70

Lab Sample ID: WG1499-1

Instrument ID: 5972HP70

Date Extracted: 02/15/00

Matrix: (soil/water) SOIL

Date Analyzed: 02/17/00

Level: (low/med) LOW

Time Analyzed: 2042

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS, and MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	SS-37	R1141-5	GR1141-5B70	02/18/00
02	SS-37MS	WG1499-5	GWG14995B70	02/18/00
03	SS-37MSD	WG1499-6	GWG14996B70	02/18/00
04	SS-34	R1141-1	GR1141-1B70	02/18/00
05	SS-36	R1141-3	GR1141-3A70	02/18/00
06	BG-04	R1141-4	GR1141-4A70	02/18/00
07	SS-35	R1141-2	GR1141-2A70	02/18/00
08				
09				
10				
11				
12				
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29				
30				

COMMENTS:

page 1 of 1

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLKJP

Lab Name: COMPUCHEM

Contract: 68-S5-3002

Lab Code: LIBRTY Case No.:

SAS No.:

SDG No.: R1141

Matrix: (soil/water) SOIL

Lab Sample ID: WG1499-1

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: GWG14991B70

Level: (low/med) LOW

Date Received: _____

% Moisture: 0 decanted: (Y/N) N

Date Extracted: 02/15/00

Concentrated Extract Volume: 500 (uL)

Date Analyzed: 02/17/00

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: _____

Extraction: (Type) SONC

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

CAS NO. COMPOUND

100-52-7	Benzaldehyde	330	U
108-95-2	Phenol	330	U
111-44-4	bis(2-Chloroethyl)ether	330	U
95-57-8	2-Chlorophenol	330	U
95-48-7	2-Methylphenol	330	U
108-60-1	2,2'-oxybis(1-Chloropropane)	330	U
98-86-2	Acetophenone	330	U
106-44-5	4-Methylphenol	330	U
621-64-7	N-Nitroso-di-n-propylamine	330	U
67-72-1	Hexachloroethane	330	U
98-95-3	Nitrobenzene	330	U
78-59-1	Isophorone	330	U
88-75-5	2-Nitrophenol	330	U
105-67-9	2,4-Dimethylphenol	330	U
111-91-1	bis(2-Chloroethoxy)methane	330	U
120-83-2	2,4-Dichlorophenol	330	U
91-20-3	Naphthalene	330	U
106-47-8	4-Chloroaniline	330	U
87-68-3	Hexachlorobutadiene	330	U
105-60-2	Caprolactam	330	U
59-50-7	4-Chloro-3-methylphenol	330	U
91-57-6	2-Methylnaphthalene	330	U
77-47-4	Hexachlorocyclopentadiene	330	U
88-06-2	2,4,6-Trichlorophenol	330	U
95-95-4	2,4,5-Trichlorophenol	830	U
92-52-4	1,1'-Biphenyl	330	U
91-58-7	2-Choronaphthalene	330	U
88-74-4	2-Nitroaniline	830	U
131-11-3	Dimethylphthalate	330	U
606-20-2	2,6-Dinitrotoluene	330	U
208-96-8	Acenaphthylene	330	U
99-09-2	3-Nitroaniline	830	U
83-32-9	Acenaphthene	330	U

FORM I SV-1

OLM04..

1D
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE

ORIGINAL

Lab Name: COMPUCHEM

Contract: 68-S5-3002

SBLKJP

Lab Code: LIBRTY Case No.:

SAS No.:

SDG No.: R1141

Matrix: (soil/water) SOIL

Lab Sample ID: WG1499-1

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: GWG14991B70

Level: (low/med) LOW

Date Received: _____

% Moisture: 0 decanted: (Y/N) N

Date Extracted: 02/15/00

Concentrated Extract Volume: 500 (uL)

Date Analyzed: 02/17/00

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: _____

Extraction: (Type) SONC

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

CAS NO. COMPOUND

51-28-5	2,4-Dinitrophenol	830	U
100-02-7	4-Nitrophenol	830	U
132-64-9	Dibenzofuran	330	U
121-14-2	2,4-Dinitrotoluene	330	U
84-66-2	Diethylphthalate	330	U
86-73-7	Fluorene	330	U
7005-72-3	4-Chlorophenyl-phenylether	330	U
100-01-6	4-Nitroaniline	830	U
534-52-1	4,6-Dinitro-2-methylphenol	830	U
86-30-6	N-nitrosodiphenylamine (1)	330	U
101-55-3	4-Bromophenyl-phenylether	330	U
118-74-1	Hexachlorobenzene	330	U
1912-24-9	Atrazine	330	U
87-86-5	Pentachlorophenol	830	U
85-01-8	Phenanthrene	330	U
120-12-7	Anthracene	330	U
86-74-8	Carbazole	330	U
84-74-2	Di-n-butylphthalate	330	U
206-44-0	Fluoranthene	330	U
129-00-0	Pyrene	330	U
85-68-7	Butylbenzylphthalate	330	U
91-94-1	3,3'-Dichlorobenzidine	330	U
56-55-3	Benzo(a)anthracene	330	U
218-01-9	Chrysene	330	U
117-81-7	bis(2-Ethylhexyl)phthalate	330	U
117-84-0	Di-n-octylphthalate	330	U
205-99-2	Benzo(b)fluoranthene	330	U
207-08-9	Benzo(k)fluoranthene	330	U
50-32-8	Benzo(a)pyrene	330	U
193-39-5	Indeno(1,2,3-cd)pyrene	330	U
53-70-3	Dibenzo(a,h)anthracene	330	U
191-24-2	Benzo(g,h,i)perylene	330	U

(1) - Cannot be separated from Diphenylamine

FORM I SV-2

OLM04.

F. Form VIII

Internal standard area and retention time data

- By fraction (VOA and SV only) -

8B
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

ORIGINAL

Lab Name: COMPUCHEM

Contract: 68-S5-3002

Lab Code: LIBRTY Case No.:

SAS No.: SDG No.: R1141

EPA Sample No. (SSTD050##): SSTD050MD

Date Analyzed: 02/17/00

Lab File ID (Standard): HG000217B70

Time Analyzed: 1722

Instrument ID: 5972HP70

GC Column: J&W DB-5MS ID:0.32 (mm)

	IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
12 HOUR STD	92353	5.67	261270	7.53	148250	10.20
UPPER LIMIT	184706	6.17	522540	8.03	296500	10.70
LOWER LIMIT	46176	5.17	130635	7.03	74125	9.70
EPA SAMPLE NO.						
01 SBLKJP	100740	5.67	343214	7.53	171207	10.20
02 SS-37	96589	5.67	296891	7.53	148916	10.20
03 SS-37MS	101606	5.67	310085	7.53	155287	10.20
04 SS-37MSD	104655	5.67	281393	7.53	162152	10.20
05 SS-34	104526	5.67	277539	7.53	154640	10.20
06						
07						
08						
09						
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11						
12						
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14						
15						
16						
17						
18						
19						
20						
21						
22						

IS1 (DCB) = 1,4-Dichlorobenzene-d4

IS2 (NPT) = Naphthalene-d8

IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.

* Values outside of QC limits

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

ORIGINAL

Lab Name: COMPUCHEM

Contract: 68-S5-3002

Lab Code: LIBRTY Case No.:

SAS No.: SDG No.: R1141

EPA Sample No. (SSTD050##): SSTD050MD

Date Analyzed: 02/17/00

Lab File ID (Standard): HG000217B70

Time Analyzed: 1722

Instrument ID: 5972HP70

GC Column: J&W DB-5MS ID: 0.32 (mm)

	IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
12 HOUR STD	221300	12.41	195694	16.43	173235	18.44
UPPER LIMIT	442600	12.91	391388	16.93	346470	18.94
LOWER LIMIT	110650	11.91	97847	15.93	86618	17.94
EPA SAMPLE NO.						
01 SBLKJP	224796	12.40	200875	16.44	175848	18.45
02 SS-37	205277	12.41	200081	16.44	174629	18.45
03 SS-37MS	222033	12.42	204843	16.44	172349	18.45
04 SS-37MSD	236523	12.41	209031	16.43	167367	18.45
05 SS-34	232037	12.41	199541	16.43	173839	18.44
06						
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						

IS4 (PHN) = Phenanthrene-d10

IS5 (CRY) = Chrysene-d12

IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = - 50% of internal standard area

RT UPPER LIMIT = + 0.50 minutes of internal standard RT

RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.

* Values outside of QC limits

SEMICVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

ORIGINAL

Lab Name: COMPUCHEM

Contract: 68-S5-3002

Lab Code: LIBRTY

Case No.:

SAS No.:

SDG No.: R1141

EPA Sample No. (SSTD050##): SSTD050ME

Date Analyzed: 02/18/00

Lab File ID (Standard): HG000218A70

Time Analyzed: 0938

Instrument ID: 5972HP70

GC Column: J&W DB-5MS ID:0.32 (mm)

	IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
12 HOUR STD	91707	5.67	250019	7.53	145246	10.20
UPPER LIMIT	183414	6.17	500038	8.03	290492	10.70
LOWER LIMIT	45854	5.17	125010	7.03	72623	9.70
EPA SAMPLE NO.						
01 SS-36	64659	5.67	173683	7.53	102012	10.20
02 BG-04	83536	5.67	217288	7.54	126812	10.20
03 SS-35	64636	5.67	186248	7.54	93906	10.20
04						
05						
06						
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						

IS1 (DCB) = 1,4-Dichlorobenzene-d4

IS2 (NPT) = Naphthalene-d8

IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = - 50% of internal standard area

RT UPPER LIMIT = + 0.50 minutes of internal standard RT

RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.

* Values outside of QC limits

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

ORIGINAL

Lab Name: COMPUCHEM

Contract: 68-S5-3002

Lab Code: LIBRTY Case No.:

SAS No.: SDG No.: R1141

EPA Sample No. (SSTD050##): SSTD050ME

Date Analyzed: 02/18/00

Lab File ID (Standard): HG000218A70

Time Analyzed: 0938

Instrument ID: 5972HP70

GC Column: J&W DB-5MS ID: 0.32 (mm)

	IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
12 HOUR STD	220069	12.42	201681	16.44	165171	18.45
UPPER LIMIT	440138	12.92	403362	16.94	330342	18.95
LOWER LIMIT	110034	11.92	100840	15.94	82586	17.95
EPA SAMPLE NO.						
01 SS-36	151249	12.41	127791	16.43	107984	18.44
02 BG-04	205819	12.41	170212	16.43	154131	18.44
03 SS-35	159072	12.41	138385	16.45	122379	18.46
04						
05						
06						
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						

IS4 (PHN) = Phenanthrene-d10

IS5 (CRY) = Chrysene-d12

IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = - 50% of internal standard area

RT UPPER LIMIT = + 0.50 minutes of internal standard RT

RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.

* Values outside of QC limits

CompuChem, a Division of Liberty Analytical Corporation

I. SAMPLE DATA PACKAGE

DOCUMENT CLIMATE

The sample data package shall include data for all analyses of all samples in one Sample Delivery Group (SDG), including field samples, dilutions, reanalyses, blanks, matrix spikes, and matrix spike duplicates. The sample data package consists of the following:

- A. SDG Narrative
- B. Traffic Reports
- C. Volatile Data
- D. Semivolatile Data
- E. Pesticide / Aroclor Data

LAB CODE : LIBRTY

CONTRACT # : 68-S5-3002

CASE # : _____

SDG # : R1141

A. SDG Narrative

COMPUCHEM

A division of Liberty Analytical Corporation
501 Madison Ave.
Cary, NC 27513

SDG NARRATIVE

**CASE #Q1141
SDG #R1141
CONTRACT #68-S5-3002**

SAMPLE IDENTIFICATIONS:

SS-34 SS-35 SS-36 BG-04 SS-37

This portion of the SDG narrative deals with the semivolatile fractions for the five samples above only. For the receiving information associated with these samples, please refer to the volatile SDG narrative.

All pertinent Quality Assurance notices are included in the narrative section and all pertinent Laboratory notices for Case #Q1141, SDG #R1141 are included in the sample data sections.

SEMOVOLATILE

The semivolatile fractions were extracted and analyzed within the required holding time. The percent moisture values for the samples ranged from 18% to 30% and the pH values ranged from 3.7 to 8.0.

One to nine Target Compound List (TCL) analytes were detected with concentrations above the Contract Required Quantitation Limit (CRQL) in two of the samples. These analytes were phenanthrene, fluoranthene, pyrene, benzo(a)anthracene, chrysene, bis(2-ethylhexyl)phthalate, benzo(b)fluoranthene, benzo(k)fluoranthene and benzo(a)pyrene.

In the continuing calibration standards associated with these samples, benzo(b)fluoranthene and benzo(k)fluoranthene were chromatographically resolved and were identified as separate peaks with different retention times. However, in sample SS-37 and the duplicate matrix spikes, the isomers could not be chromatographically resolved. This is indicated with "X" flags on the Form Is.

Six to nineteen Tentatively Identified Compounds (TIC) were detected in the samples. Many of these TICs were assessed as unknowns and PAHs. Other TICs were detected and assessed as unknown alkanes in some of the samples. The TICs that were characterized as alkanes have been summarized on the Alkane Narrative Report that are located in the narrative section of the data package. The TIC spectra for the alkanes are located in the data section for the individual samples.

QC SUMMARY

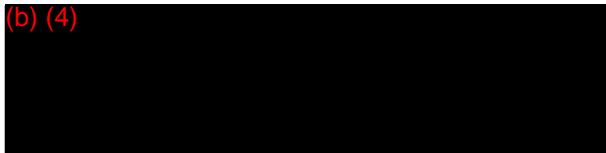
All decafluorotriphenylphosphine (DFTPP) abundance criteria were met for tunes associated to this SDG. Overall QC criteria were met for all initial and continuing calibration standards associated to this SDG.

The surrogates met recovery criteria for the semivolatile fractions. The internal standards met area response and retention time criteria. The duplicate matrix spikes met accuracy and precision criteria. The associated blanks, Initial Calibrations and Continuing Calibrations met Quality Control criteria.

In the analyses of the Initial and Continuing Calibration standards and all of the samples, manual quantitations were performed. The reasons have been coded with explanations provided in the notice included in the narrative section of the SDG.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the laboratory manager or his designee, as verified by the following signature:

(b) (4)



Final Technical Review
21 February 2000

Note: This report is paginated for reference and accountability in numerical sequence.

ALKANE NARRATIVE REPORT
Report date : 02/21/2000
SDG: R1141

Client Sample ID: SS-37 Compound	Lab Sample ID: R1141-5	File ID: GR1141-5B70
	RT	Est. Conc. Q
Straight-Chain Alkane	17.40	88.45 J
Straight-Chain Alkane	18.30	310.7 J
Straight-Chain Alkane	19.28	300.7 J
Client Sample ID: SS-34 Compound	Lab Sample ID: R1141-1	File ID: GR1141-1B70
	RT	Est. Conc. Q
Straight-Chain Alkane	18.29	375.7 J
Straight-Chain Alkane	19.27	322.4 J
Client Sample ID: SS-36 Compound	Lab Sample ID: R1141-3	File ID: GR1141-3A70
	RT	Est. Conc. Q
Unknown Alkane	18.29	191.8 J
Straight-Chain Alkane	19.27	140.6 J
Client Sample ID: BG-04 Compound	Lab Sample ID: R1141-4	File ID: GR1141-4A70
	RT	Est. Conc. Q
Unknown Alkane	15.40	83.65 J
Straight-Chain Alkane	17.39	183.3 J
Straight-Chain Alkane	18.29	398.8 J
Straight-Chain Alkane	19.27	320.6 J
Client Sample ID: SS-35 Compound	Lab Sample ID: R1141-2	File ID: GR1141-2A70
	RT	Est. Conc. Q
Branched Alkane	15.42	89.86 J
Straight-Chain Alkane	16.94	104.6 J
Branched Alkane	18.75	252.3 J
Straight-Chain Alkane	19.27	411.6 J

DATA REPORTING QUALIFIERS

On the Form 1, under the column labeled "Q" for qualifier, each result is flagged with the specific data reporting qualifiers listed below, as appropriate. Up to five qualifiers may be reported on Form 1 for each compound. The qualifiers used are:

- U : This flag indicates the compound was analyzed for but not detected. The Contract Required Quantitation Limit (CRQL) (or Reporting Limit) will be adjusted to reflect any dilution and for soils, the percent moisture.
- J : This flag indicates an estimated value. The flag is used as detailed below:
1. When estimating a concentration for tentatively identified compounds (TICs) where a response factor of 1.0 is assumed for the TIC analyte.
 2. When the mass spectral and retention time data indicate the presence of a compound that meets the volatile and semivolatile GC/MS identification criteria and the result is less than the CRQL (or Reporting Limit) but greater than zero.
 3. When the retention time data indicates the presence of a compound that meets the pesticide/Aroclor or other GC or HPLC identification criteria and the result is less than the CRQL (or Reporting Limit) but greater than zero. For example, if the CRQL (or Reporting Limit) is 10 ug/L but a concentration of 3 ug/L is calculated, it is reported as 3J.
- N : This flag indicates presumptive evidence of a compound. This flag is only used for TICs, where the identification is based on a mass spectral library search. For generic characterization of a TIC such as 'chlorinated hydrocarbon', the N flag is not used.
- P : In the EPA's Contract Laboratory Program (CLP), this flag is used for a pesticide/Aroclor target analyte, when there is greater than 25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form 1 and flagged with a P. For SW-846 GC and HPLC analyses, when the Relative Percent Difference (RPD) is greater than 40% and there is no evidence of chromatographic anomalies or interferences, then the higher of the two values is reported and flagged with a P. When the RPD is equal to or less than 40%, our policy is to also report the higher of the two values, although the choice could be a project specific issue.
- C : This flag applies to GC or HPLC results where the identification has been confirmed by GC/MS. If GC/MS confirmation was attempted but was unsuccessful, this flag is not applied; a laboratory-defined flag is used instead (see the X/Y/Z qualifier).

DATA REPORTING QUALIFIERS (continued)

- B : This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates probable blank contamination and warns the data user to take appropriate action. This flag is used for a TIC as well as for a positively identified target compound. The combination of flags BU or UB is not an allowable policy. Blank contaminants are flagged B only when they are detected in the sample.
- E : This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis. If one or more compounds have a response greater than the upper level of the calibration range, the sample or extract will be diluted and reanalyzed. All such compounds with a response greater than the upper level of the calibration range will have the concentration flagged with an E on Form 1 for the original analysis.
- D : If a sample or extract is reanalyzed at a higher dilution factor, for example when the concentration of an analyte exceeds the upper calibration range, the DL suffix is appended to the sample number on Form 1 for the more diluted sample and all reported concentrations on that Form 1 are flagged with the D flag. This flag alerts data users that any discrepancies between the reported concentrations may be due to dilution of the sample or extract.

NOTE 1: The D flag is not applied to compounds which are not detected in the sample analysis i.e. compounds reported with the CRQL (or Reporting Limit) and the U flag.

NOTE 2: Separate Form 1s are used for reporting the original analysis (Client Sample No. XXXXX) and the more diluted sample analysis (Client Sample No. XXXXXDL) i.e. the results from both analyses are not combined on a single Form 1.

- A : This flag indicates that a TIC is a suspected aldol-condensation product.
- S : This flag indicates that an analyte was detected by a single column GC analysis but the result was below the Reporting Limit. This flag is only used when clients request a second (confirmation) column analysis after detecting an analyte above the Reporting Limit in the initial, single column analysis. This flag alerts the data user that only an analyte was detected below the Reporting Limit and a second (confirmation) analysis was not performed.

X/Y/Z: Other specific flags may be required to properly define the results. If used, the flags will be fully described in the SDG Narrative. The laboratory-defined flags are limited to X, Y and Z.

B. Chain-of-Custodies

The laboratory shall include a copy of the Chain-of-Custodies (CoCs) for all of the samples in the SDG. The CoCs shall be arranged in increasing Client Sample ID number order, considering both letters and numbers.

COMPUCHEM**Work Group Report (wk02)**

15-FEB-00 12:04 PM

ORIGINAL

Work Group: WG1499

Department: 310 ORGANIC EXTRACTIONS

Created: 15-FEB-00

Sample	Client ID	Product	Matrix	RecvDate	Bottle#	Lab Information
BZB02-1	BZB02	SEMIVOA-LL-OLM04.2	Soil	14-FEB-00	_____	_____
BZB02-2	BZB06	SEMIVOA-LL-OLM04.2	Soil	14-FEB-00	_____	_____
BZB02-3	BZB03	SEMIVOA-LL-OLM04.2	Soil	15-FEB-00	_____	_____
BZB02-4	BZB05	SEMIVOA-LL-OLM04.2	Soil	15-FEB-00	_____	_____
BZB02-5	BZB91	SEMIVOA-LL-OLM04.2	Soil	15-FEB-00	_____	_____
BZB02-6	BZB92	SEMIVOA-LL-OLM04.2	Soil	15-FEB-00	_____	_____
R1141-1	SS-34	SVOA-LL-OLM04.2	Soil	15-FEB-00	_____	_____
R1141-2	SS-35	SVOA-LL-OLM04.2	Soil	15-FEB-00	_____	_____
R1141-3	SS-36	SVOA-LL-OLM04.2	Soil	15-FEB-00	_____	_____
R1141-4	BG-04	SVOA-LL-OLM04.2	Soil	15-FEB-00	_____	_____
R1141-5	SS-37	SVOA-LL-OLM04.2	Soil	15-FEB-00	_____	_____
WG1499-1	SBLKJP	SEMIVOA-LL-OLM04.2	Soil	15-FEB-00	_____	_____
WG1499-1	SBLKJP	SVOA-LL-OLM04.2	Soil	15-FEB-00	_____	_____
WG1499-2	SJPLCS	SEMIVOA-LL-OLM04.2	Soil	15-FEB-00	_____	_____
WG1499-2	SJPLCS	SVOA-LL-OLM04.2	Soil	15-FEB-00	_____	_____
WG1499-3	BZB91MS	SEMIVOA-LL-OLM04.2	Soil	15-FEB-00	_____	_____
WG1499-3	BZB91MS	SVOA-LL-OLM04.2	Soil	15-FEB-00	_____	_____
WG1499-4	BZB91MSD	SEMIVOA-LL-OLM04.2	Soil	15-FEB-00	_____	_____
WG1499-4	BZB91MSD	SVOA-LL-OLM04.2	Soil	15-FEB-00	_____	_____
WG1499-5	Matrix Spike	SEMIVOA-LL-OLM04.2	Soil	15-FEB-00	_____	_____
WG1499-5	Matrix Spike	SVOA-LL-OLM04.2	Soil	15-FEB-00	_____	_____
WG1499-6	Matrix Spike Duplicate	SEMIVOA-LL-OLM04.2	Soil	15-FEB-00	_____	_____
WG1499-6	Matrix Spike Duplicate	SVOA-LL-OLM04.2	Soil	15-FEB-00	_____	_____

Comments:

BZB02-1	ENCORE
BZB02-2	ENCORE
BZB02-3	ENCORES
BZB02-4	ENCORES
BZB02-5	USE FOR QC/*ENCORES
BZB02-6	ENCORES
R1141-1	PPS754/TCL SVOAs&PEST/PCBs(OLM03.2)/TAL METALS(ILM04.0)/PICK QC
R1141-2	PPS754/TCL SVOAs&PEST/PCBs(OLM03.2)/TAL METALS(ILM04.0)/PICK QC
R1141-3	PPS754/TCL SVOAs&PEST/PCBs(OLM03.2)/TAL METALS(ILM04.0)/PICK QC
R1141-4	PPS754/TCL SVOAs&PEST/PCBs(OLM03.2)/TAL METALS(ILM04.0)/PICK QC
R1141-5	PPS754/TCL SVOAs&PEST/PCBs(OLM03.2)/TAL METALS(ILM04.0)/PICK QC/SDG CLOSED

EXTRACTSBatch # 2-17-1

Internal Chain of Custody						
Relinquished By	<i>RJC</i>	Date 2/17	Received By	<i>L-CMS Refrig</i>	Date 2/17	Reason <i>Temp Storage</i>
Relinquished By	<i>Refrig H2</i>	Date 2/17/00	Received By	<i>F. Newell</i>	Date 2/17/00	Reason <i>Analysis #7c</i>
Relinquished By	<i>F. Newell</i>	Date 2/17/00	Received By	<i>GCM Refrig #2</i>	Date 2/17/00	Reason <i>Temp Storage</i>
Relinquished By	<i>L-CMS Refrig</i>	Date 2/18	Received By	<i>L-MICL</i>	Date 2/18	Reason <i>Analysis</i>
Relinquished By	<i>L-MICL</i>	Date 2/18	Received By	<i>L-CMS Refrig</i>	Date 2/18/00	Reason <i>Temp Storage</i>
Relinquished By			Received By		Date	Reason
Relinquished By			Received By		Date	Reason
Relinquished By			Received By		Date	Reason

ORIGINAL

Semi-Volatile Low Level Quantitation

COMPUCHEM

ASSIGNED TO Elizabeth EMPLOYEE ID #

QUEUE # 52

X 17 1

DATE EXTRACTED/POSTED 2/15/00

-738

Sample Number	Case #	CLIENT ID #	QC SAMPLES		BTL #	Sample Weight (g)	Final Volume (ml)	GPC Inject. Vol (ml)	GPC Final Vol (ml)	COMMENTS	O	L
			Type	Org. #							INITIALS	DATE
BZB02-1	27795	BZB02			1 of 1	30.0	10.0	5.0	0.5	AUTO COUNTER	/	ORIGINAL
2		06			1 of 1	30.0		5.0		ENTERED FOR SS's	/	
3		03			1 of 1	30.0		5.0				
4		05			1 of 1	30.0		5.0				
5		91			2 of 2	30.0		5.0				
6	↓	92			1 of 1	30.0		5.0				
IV6-1499-3			55		2 of 2	30.0		5.0				
4	-4		55		2 of 2	30.0		5.0				
R1141-1		SS-34			1 of 1	30.0		5.0				
2		35			1 of 1	30.0		5.0				
3		36			1 of 1	30.0		5.0				
4		B6#04			1 of 1	30.0		5.0				
5	↓	SS-37			1 of 1	30.0		5.0				
IV6-1499-5			55		1 of 1	30.0	↓	5.0	↓			
6	↓	55			1 of 1	30.0		5.0				
					of			5.0				
					of			5.0				
					of			5.0				
					of			5.0				
					of			5.0				
					of			5.0				
					of			5.0				
					of			5.0				
					of			5.0				
IV6-1499-2		SPLCS			of	30.0	10.0	5.0	0.5			
IV6-1499-1		SBLKSP	SBLK	B1	—	30.0	↓	5.0	0.5			

GPC Inst. #

4

GPC Calib Date

2/10/00

GPC Run Date

2/16/00

MANUAL COUNTER: 1506/

FINAL VOLUME VERIFIED:

REVIEWED BY: 056 05/17

EXTRACTS RECEIVED BY: LCMS Re.Frig

ID#	AMT	LOT #	SURR. & SPIKE ADDED BY	
SURROGATE	431	0.5 ml	EZ	2.15.00
SPIKE	8003	0.5 ml	INITIALS	DATE
Date GPC MeC12 Blank Done			Witness VH	2.15.00

Analysts initials. Extracted

EZ

KD

EZ

N2

NB

Bottle up NB

MANUFACTURER AND LOT NO. OF REAGENTS/SOLVENTS USED MeC12 BW420, No. 584 N39582, Report Bl169

Rev092

D. Semivolatile Data

1. Q C Summary
2. Sample Data
3. Standards Data
4. Raw Q C Data

LAB CODE : LIBRTY

CONTRACT # : 68-S5-3002

CASE # : _____

SDG # : f1141

1. Q C Summary

- a. Surrogate Percent Recovery Summary (Form II SV)
- b. Matrix Spike/Matrix Spike Duplicate Summary
(Form III SV)
- c. Method Blank Summary (Form IV SV)
- d. GC/MS Instrument Performance Check
(Form V SV)
- e. Internal Standard Area and RT Summary
(Form VIII SV)

ORIGINAL

a. Surrogate Percent Recovery Summary
(Form II SV)

2D
SOIL SEMIVOLATILE SURROGATE RECOVERY

ORIGINAL

Lab Name: COMPUCHEM

Contract: 68-S5-3002

Lab Code: LIBRTY Case No.:

SAS No.:

SDG No.: R1141

Level: (low/med) LOW

	EPA SAMPLE NO.	S1 (NBZ) #	S2 (FBP) #	S3 (TPH) #	S4 (PHL) #	S5 (2FP) #	S6 (TBP) #	S7 (2CP) #	S8 (DCB) #	TOT OUT
01	SBLKJP	60	72	71	66	63	83	68	64	0
02	SS-37	72	78	77	68	75	92	71	70	0
03	SS-37MS	67	75	71	63	71	86	64	67	0
04	SS-37MSD	76	72	63	62	63	70	61	66	0
05	SS-34	67	67	62	59	52	63	59	50	0
06	SS-36	90	88	86	83	75	89	84	56	0
07	BG-04	72	67	58	60	56	70	60	59	0
08	SS-35	77	80	79	77	70	97	75	49	0
09										
10										
11										
12										
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27										
28										
29										
30										

QC LIMITS

S1 (NBZ) = Nitrobenzene-d5	(23-120)
S2 (FBP) = 2-Fluorobiphenyl	(30-115)
S3 (TPH) = Terphenyl-d14	(18-137)
S4 (PHL) = Phenol-d5	(24-113)
S5 (2FP) = 2-Fluorophenol	(25-121)
S6 (TBP) = 2,4,6-Tribromophenol	(19-122)
S7 (2CP) = 2-Chlorophenol-d4	(20-130) (advisory)
S8 (DCB) = 1,2-Dichlorobenzene-d4	(20-130) (advisory)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogate diluted out

b. Matrix Spike/Matrix Spike Duplicate
Summary
(Form III SV)

3D
SOIL SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

ORIGINAL

Lab Name: COMPUCHEM

Contract: 68-S5-3002

Lab Code: LIBRTY Case No.:

SAS No.:

SDG No.: R1141

Matrix Spike - EPA Sample No.: SS-37

Level: (low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC LIMITS REC.
Phenol	3125	0.00	2127	68	26- 90
2-Chlorophenol	3125	0.00	2620	84	25-102
N-Nitroso-di-n-prop. (1)	2083	0.00	1679	81	41-126
4-Chloro-3-methylphenol	3125	0.00	2741	88	26-103
Acenaphthene	2083	0.00	1653	79	31-137
4-Nitrophenol	3125	0.00	3153	101	11-114
2,4-Dinitrotoluene	2083	0.00	1815	87	28- 89
Pentachlorophenol	3125	0.00	2495	80	17-109
Pyrene	2083	72.12	1970	91	35-142

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	REC.
Phenol	3125	2090	67	1	35	26- 90
2-Chlorophenol	3125	2390	76	10	50	25-102
N-Nitroso-di-n-prop. (1)	2083	1513	73	10	38	41-126
4-Chloro-3-methylphenol	3125	2467	79	11	33	26-103
Acenaphthene	2083	1553	75	5	19	31-137
4-Nitrophenol	3125	2715	87	15	50	11-114
2,4-Dinitrotoluene	2083	1374	66	27	47	28- 89
Pentachlorophenol	3125	1852	59	30	47	17-109
Pyrene	2083	1648	76	18	36	35-142

(1) N-Nitroso-di-n-propylamine

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 9 outside limits

Spike Recovery: 0 out of 18 outside limits

COMMENTS: _____

c. Method Blank Summary (Form IV SV)

If more than a single form is necessary, forms shall be arranged in chronological order by date of analysis and by instrument.

4B
SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

SBLKJP
ORIGINAL

Lab Name: COMPUCHEM

Contract: 68-S5-3002

Lab Code: LIBRTY Case No.:

SAS No.: SDG No.: R1141

Lab File ID: GWG14991B70

Lab Sample ID: WG1499-1

Instrument ID: 5972HP70

Date Extracted: 02/15/00

Matrix: (soil/water) SOIL

Date Analyzed: 02/17/00

Level: (low/med) LOW

Time Analyzed: 2042

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS, and MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01 SS-37	R1141-5	GR1141-5B70	02/18/00
02 SS-37MS	WG1499-5	GWG14995B70	02/18/00
03 SS-37MSD	WG1499-6	GWG14996B70	02/18/00
04 SS-34	R1141-1	GR1141-1B70	02/18/00
05 SS-36	R1141-3	GR1141-3A70	02/18/00
06 BG-04	R1141-4	GR1141-4A70	02/18/00
07 SS-35	R1141-2	GR1141-2A70	02/18/00
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COMMENTS: _____

page 1 of 1

FORM IV SV

OLM04.2

d. GC/MS Instrument Performance Check (Form V SV)

If more than a single form is necessary, forms shall be arranged in chronological order, by instrument.

5B
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

ORIGINAL

Lab Name: COMPUCHEM

Contract: 68-S5-3002

Lab Code: LIBRTY Case No.:

SAS No.: SDG No.: R1141

Lab File ID: DF000214A70

DFTPP Injection Date: 02/14/00

Instrument ID: 5972HP70

DFTPP Injection Time: 1108

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 80.0% of mass 198	50.6
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	52.2
70	Less than 2.0% of mass 69	0.3 (0.6)1
127	25.0 - 75.0% of mass 198	35.2
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.6
275	10.0 - 30.0% of mass 198	22.7
365	Greater than 0.75% of mass 198	2.43
441	Present, but less than mass 443	8.6
442	40.0 - 110.0% of mass 198	55.0
443	15.0 - 24.0% of mass 442	10.9 (19.8)2

1-Value is % mass 69

2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01 SSTD050Z5	SSTD050Z5	HG000214A70	02/14/00	1130
02 SSTD160Z5	SSTD160Z5	HH000214A70	02/14/00	1208
03 SSTD020Z5	SSTD020Z5	HJ000214A70	02/14/00	1245
04 SSTD120Z5	SSTD120Z5	HJ000214A70	02/14/00	1322
05 SSTD080Z5	SSTD080Z5	HK000214A70	02/14/00	1359
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5B
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: COMPUCHEM

Contract: 68-S5-3002

Lab Code: LIBRTY Case No.:

SAS No.: SDG No.: R1141

Lab File ID: DF000217B70

DFTPP Injection Date: 02/17/00

Instrument ID: 5972HP70

DFTPP Injection Time: 1701

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 80.0% of mass 198	73.7
68	Less than 2.0% of mass 69	0.2 (0.2)1
69	Mass 69 relative abundance	76.9
70	Less than 2.0% of mass 69	0.4 (0.5)1
127	25.0 - 75.0% of mass 198	47.1
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.7
275	10.0 - 30.0% of mass 198	18.0
365	Greater than 0.75% of mass 198	2.39
441	Present, but less than mass 443	10.0
442	40.0 - 110.0% of mass 198	63.5
443	15.0 - 24.0% of mass 442	11.6 (18.3)2

1-Value is % mass 69

2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01 SSTD050MD	SSTD050MD	HG000217B70	02/17/00	1722
02 SBLKJP	WG1499-1	GWG14991B70	02/17/00	2042
03 SS-37	R1141-5	GR1141-5B70	02/18/00	0243
04 SS-37MS	WG1499-5	GWG14995B70	02/18/00	0319
05 SS-37MSD	WG1499-6	GWG14996B70	02/18/00	0355
06 SS-34	R1141-1	GR1141-1B70	02/18/00	0431
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5B
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

ORIGINAL

Lab Name: COMPUCHEM

Contract: 68-S5-3002

Lab Code: LIBRTY Case No.:

SAS No.: SDG No.: R1141

Lab File ID: DF000218A70

DFTPP Injection Date: 02/18/00

Instrument ID: 5972HP70

DFTPP Injection Time: 0915

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 80.0% of mass 198	62.7
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	65.6
70	Less than 2.0% of mass 69	0.4 (0.6)1
127	25.0 - 75.0% of mass 198	43.0
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.9
275	10.0 - 30.0% of mass 198	17.5
365	Greater than 0.75% of mass 198	1.83
441	Present, but less than mass 443	6.9
442	40.0 - 110.0% of mass 198	44.8
443	15.0 - 24.0% of mass 442	8.5 (19.0)2

1-Value is % mass 69

2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01 SSTD050ME	SSTD050ME	HG000218A70	02/18/00	0938
02 SS-36	R1141-3	GR1141-3A70	02/18/00	1017
03 BG-04	R1141-4	GR1141-4A70	02/18/00	1053
04 SS-35	R1141-2	GR1141-2A70	02/18/00	1128
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RECORDED

e. Internal Standard Area and RT Summary
(Form VIII SV)

If more than a single form is necessary, forms shall be arranged in chronological order, by instrument.

8B
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

ORIGINAL

Lab Name: COMPUCHEM

Contract: 68-S5-3002

Lab Code: LIBRTY Case No.:

SAS No.: SDG No.: R1141

EPA Sample No. (SSTD050##): SSTD050MD

Date Analyzed: 02/17/00

Lab File ID (Standard): HG000217B70

Time Analyzed: 1722

Instrument ID: 5972HP70

GC Column: J&W DB-5MS ID:0.32 (mm)

	IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
12 HOUR STD	92353	5.67	261270	7.53	148250	10.20
UPPER LIMIT	184706	6.17	522540	8.03	296500	10.70
LOWER LIMIT	46176	5.17	130635	7.03	74125	9.70
EPA SAMPLE NO.						
01 SBLKJP	100740	5.67	343214	7.53	171207	10.20
02 SS-37	96589	5.67	296891	7.53	148916	10.20
03 SS-37MS	101606	5.67	310085	7.53	155287	10.20
04 SS-37MSD	104655	5.67	281393	7.53	162152	10.20
05 SS-34	104526	5.67	277539	7.53	154640	10.20
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IS1 (DCB) = 1,4-Dichlorobenzene-d4

IS2 (NPT) = Naphthalene-d8

IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = - 50% of internal standard area

RT UPPER LIMIT = + 0.50 minutes of internal standard RT

RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.

* Values outside of QC limits

SEMOVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

ORIGINAL

Lab Name: COMPUCHEM

Contract: 68-S5-3002

Lab Code: LIBRTY

Case No.:

SAS No.:

SDG No.: R1141

EPA Sample No. (SSTD050##): SSTD050MD

Date Analyzed: 02/17/00

Lab File ID (Standard): HG000217B70

Time Analyzed: 1722

Instrument ID: 5972HP70

GC Column: J&W DB-5MS ID:0.32 (mm)

	IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
12 HOUR STD	221300	12.41	195694	16.43	173235	18.44
UPPER LIMIT	442600	12.91	391388	16.93	346470	18.94
LOWER LIMIT	110650	11.91	97847	15.93	86618	17.94
EPA SAMPLE NO.						
01 SBLKJP	224796	12.40	200875	16.44	175848	18.45
02 SS-37	205277	12.41	200081	16.44	174629	18.45
03 SS-37MS	222033	12.42	204843	16.44	172349	18.45
04 SS-37MSD	236523	12.41	209031	16.43	167367	18.45
05 SS-34	232037	12.41	199541	16.43	173839	18.44
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IS4 (PHN) = Phenanthrene-d10

IS5 (CRY) = Chrysene-d12

IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = - 50% of internal standard area

RT UPPER LIMIT = + 0.50 minutes of internal standard RT

RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.

* Values outside of QC limits

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

ORIGINAL

Lab Name: COMPUCHEM

Contract: 68-S5-3002

Lab Code: LIBRTY

Case No.:

SAS No.:

SDG No.: R1141

EPA Sample No. (SSTD050##): SSTD050ME

Date Analyzed: 02/18/00

Lab File ID (Standard): HG000218A70

Time Analyzed: 0938

Instrument ID: 5972HP70

GC Column: J&W DB-5MS ID:0.32 (mm)

	IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
12 HOUR STD	91707	5.67	250019	7.53	145246	10.20
UPPER LIMIT	183414	6.17	500038	8.03	290492	10.70
LOWER LIMIT	45854	5.17	125010	7.03	72623	9.70
EPA SAMPLE NO.						
01 SS-36	64659	5.67	173683	7.53	102012	10.20
02 BG-04	83536	5.67	217288	7.54	126812	10.20
03 SS-35	64636	5.67	186248	7.54	93906	10.20
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IS1 (DCB) = 1,4-Dichlorobenzene-d4

IS2 (NPT) = Naphthalene-d8

IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.

* Values outside of QC limits

SEMICVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

ORIGINAL

Lab Name: COMPUCHEM

Contract: 68-S5-3002

Lab Code: LIBRTY

Case No.:

SAS No.:

SDG No.: R1141

EPA Sample No. (SSTD050##): SSTD050ME

Date Analyzed: 02/18/00

Lab File ID (Standard): HG000218A70

Time Analyzed: 0938

Instrument ID: 5972HP70

GC Column: J&W DB-5MS ID:0.32 (mm)

	IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
12 HOUR STD	220069	12.42	201681	16.44	165171	18.45
UPPER LIMIT	440138	12.92	403362	16.94	330342	18.95
LOWER LIMIT	110034	11.92	100840	15.94	82586	17.95
EPA SAMPLE NO.						
01 SS-36	151249	12.41	127791	16.43	107984	18.44
02 BG-04	205819	12.41	170212	16.43	154131	18.44
03 SS-35	159072	12.41	138385	16.45	122379	18.46
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IS4 (PHN) = Phenanthrene-d10

IS5 (CRY) = Chrysene-d12

IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = - 50% of internal standard area

RT UPPER LIMIT = + 0.50 minutes of internal standard RT

RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.

* Values outside of QC limits